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09/835,551	04/17/2001	Jun Koyama	12732-026001	6234

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EXAMINER
LEE, WILSON

ART UNIT	PAPER NUMBER
2821	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/835,551	Applicant(s) KOYAMA	
	Examiner Wilson Lee	Art Unit 2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 June 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) *1-10* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *11-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *2* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

Remarks

Applicant elects Group II (Claims 11-26) without traverse in paper no. 10. Therefore, claims 1-10 are withdrawn from consideration.

Claim Rejections – 35 U.S.C. 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 11-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Yamazaki et al. (6,593,592).

Regarding Claim 11, Yamazaki discloses an electronic device (See Figure 1) having at least one self-light emitting device comprising:

- a first semiconductor island (CMOS) formed on an insulating surface (quartz substrate or ceramic substrate 201), said first semiconductor island having at least first and second impurity regions (226-228) and a channel region (233) therebetween;
- a second semiconductor island (pixel TFT) formed on said insulating surface, said second semiconductor island separated from said first semiconductor island;

- an insulating film (253) formed on said first semiconductor island and said second semiconductor island;
- a gate electrode (34) formed over said first semiconductor island with said insulating film (253) interposed therebetween;
- a capacitor forming electrode (219) formed over said second semiconductor island with said insulating film interposed therebetween, wherein said gate electrode and said capacitor forming electrode (219) are formed in a same conductive layer and electrically connected to each other (See Abstract); and
- a light emitting element (EL element) comprising a cathode (4305), an anode (4302) and a light emitting material (EL layer 4304) interposed between said cathode and said anode wherein one of said first and second impurity regions is electrically connected to one of said cathode and said anode.

Regarding Claim 12, Yamazaki discloses that the electronic device is selected from the group consisting of a cellular phone, a personal computer, a video camera, a goggle type display, a portable computer, a DVD and an EL display (See Figures 22A-22F and 23A-23D).

Regarding Claim 13, Yamazaki discloses that a switching thin film transistor having a drain region (104, 108) electrically connected to the gate electrode (See Claim 23).

Regarding Claim 14, Yamazaki discloses that an electronic device (See Figure 1) having at least one self-light emitting device comprising:

- a first semiconductor island (CMOS) formed on an insulating surface (201), said first semiconductor island having at least first and second impurity regions (226-228) and a channel region (233) therebetween;
- a second semiconductor island (pixel TFT) formed on said insulating surface, said second semiconductor island separated from said first semiconductor island;
- an insulating film (253) formed on said first semiconductor island and said second semiconductor island;
- a gate electrode (34) formed over said first semiconductor island with said insulating film interposed therebetween;
- a capacitor forming electrode (219) formed over said second semiconductor island with said insulating film interposed therebetween wherein said gate electrode and said-capacitor forming electrode are formed in a same conductive layer and electrically connected to each other (See Abstract);
- a capacitor (storage capacitor. See Col. 6, lines 8-24) having said capacitor forming electrode and said second semiconductor island with said insulating film interposed therebetween; an interlayer insulating film formed over said capacitor forming electrode (See Col. 3, lines 16-50);

- a current supply line (4408) formed over said interlayer insulating film wherein said current supply line is electrically connected to one of said first and second impurity regions of the first semiconductor island; and
- a light emitting element (EL element) comprising a cathode (4305), an anode (4302) and a light emitting material (EL layer 4304) interposed between said cathode and said anode wherein the other one of said first and second impurity regions is electrically connected to one of said cathode and said anode, wherein said second semiconductor island is covered by said current supply line.

Regarding Claim 15, Yamazaki discloses that the electronic device is selected from the group consisting of a cellular phone, a personal computer, a video camera, a goggle type display, a portable computer, a DYD and an EL display (See Figures 22A-22F and 23A-23D).

Regarding Claim 16, Yamazaki discloses that a switching thin film transistor having a drain region (104, 108) electrically connected to said gate electrode (See Claim 23).

Regarding Claim 17, Yamazaki discloses that the first and second semiconductor islands comprise crystalline silicon (204).

Regarding Claim 18, Yamazaki discloses that a driver circuit (See Col. 15, lines 16-33) formed on said insulating surface, said driver circuit comprising thin film transistors having a crystalline channel region. (See Col. 15, lines 61-65)

Regarding Claim 19, Yamazaki discloses an electronic device (See Figure 1) having at least one self-light emitting device comprising:

- a gate wiring formed over a substrate (See Col. 2, lines 45-58);
- a first switching element (CMOS) formed over said substrate and including at least one first thin film transistor wherein a gate electrode of said first thin film transistor is electrically connected to said gate wiring; a source wiring extending across said gate wiring;
- a second switching element (pixel TFT) formed over said substrate and including at least one second thin film transistor, said second thin film transistor comprising a semiconductor island having at least first and second impurity regions (229, 230) and a channel region (237a, 237b), a gate insulating film formed on said semiconductor island and a gate electrode formed on said gate insulating film, wherein said gate electrode is electrically connected to said source wiring through at least said first switching element;
- a current supply line (4408) extending across said gate wiring and electrically connected to one of said first and second impurity regions (229, 230) of the second thin film transistor;
- a capacitor (storage capacitor. See Col. 6, lines 8-24) electrically connected between said gate electrode of the second thin film transistor and said current supply line wherein said capacitor is covered by said current supply line; and

- a light emitting element (EL element) comprising a cathode (4305), an anode (4302) and a light emitting material (EL layer 4304) interposed between said cathode and said anode wherein the other one of said first and second impurity regions is electrically connected to one of said cathode and said anode.

Regarding Claim 20, Yamazaki discloses that the electronic device is selected from the group consisting of a cellular phone, a personal computer, a video camera, a goggle type display, a portable computer, a DVD and an EL display (See Figures 22A-22F and 23A-23D).

Regarding Claim 21, Yamazaki discloses that the semiconductor island comprises crystalline silicon (204).

Regarding Claim 22, Yamazaki discloses that a driver circuit (See Col. 15, llines 16-33) formed over said substrate, said driver circuit comprising thin film transistors having a crystalline channel region (See Col. 15, lines 61-65).

Regarding Claim 23, Yamazaki discloses an electronic device having at least one self-light emitting device comprising:

- a gate wiring formed over a substrate(See Col. 2, lines 45-58);
- a first switching element (CMOS) formed over said substrate and including at least one first thin film transistor wherein a gate electrode of said first thin film transistor is electrically connected to said gate wiring; a source wiring extending across said gate wiring;

- a second switching element (pixel TFT) formed over said substrate and including at least one second thin film transistor, said second thin film transistor comprising a semiconductor island having at least first and second impurity regions (229, 230) and a channel region (237a, 237b), a gate insulating film formed on said semiconductor island and a gate electrode formed on said gate insulating film, wherein said gate electrode is electrically connected to said source wiring through at least said first switching element;
- a current supply line (4408) extending across said gate wiring and electrically connected to one of said first and second impurity regions (229, 230) of the second thin film transistor;
- a capacitor (storage capacitor. See Col. 6, lines 8-24) having a first electrode comprising a same material as said semiconductor island, a second electrode comprising a same material as and electrically connected to said gate electrode of the second thin film transistor (See Col. 6, lines 60 to Col. 7, lines 24)and an insulating film (253) comprising a same material as said gate insulating film between said first and second gate electrodes wherein said capacitor is located below said current supply line; and
- a light emitting element (EL element) comprising a cathode (4305), an anode (4302) and a light emitting material (EL layer 4304) interposed between said cathode and said anode wherein the other one of said first

and second impurity regions is electrically connected to one of said cathode and said anode,

- wherein said first electrode is separated from said semiconductor island and is electrically connected to said current supply line.

Regarding Claim 24, Yamazaki discloses that the electronic device is selected from the group consisting of a cellular phone, a personal computer, a video camera, a goggle type display, a portable computer, a DVD and an EL display (See Figures 22A-22F and 23A-23D).

Regarding Claim 25, Yamazaki discloses that the semiconductor island comprises crystalline silicon (204).

Regarding Claim 26, Yamazaki discloses that a driver circuit (See Col. 15, llines 16-33) formed over said substrate, said driver circuit comprising thin film transistors having a crystalline channel region (See Col. 15, lines 61-65).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Tang et al. (5,294,870) discloses an organic EL multicolor image display device.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Wilson Lee whose telephone number is (703) 306-3426.

Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center receptionist whose telephone number is (703) 308-0956.

Papers related to Technology Center 2800 applications may be submitted to Technology Center 2800 by facsimile transmission. Any transmission not to be considered an official response must be clearly marked "DRAFT". The Technology Center Fax Center number is (703) 308-7722 or (703) 308-7724.

Wilson Lee
Patent Examiner
U.S. Patent & Trademark Office

WL
9/22/03